

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 10/561, 084  
Source: IFWP  
Date Processed by STIC: 01/04/2006

***ENTERED***

**CRF Errors Edited by the STIC Systems Branch**

Serial Number: 10/561, 084

CRF Edit Date: 01/04/06  
Edited by: DA

— Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

— Corrected the SEQ ID NO. Sequence numbers edited were:

\_\_\_\_\_

— Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

\_\_\_\_\_

~~Deleted: \_\_\_\_\_ invalid beginning/end-of-file text ; \_\_\_\_\_ page numbers~~

— Inserted mandatory headings/numeric identifiers, specifically:

\_\_\_\_\_

— Moved responses to same line as heading/numeric identifier, specifically:

\_\_\_\_\_

— Other:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



IFWP

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/561,084

DATE: 01/04/2006  
TIME: 09:40:52

Input Set : A:\pto.da.txt  
Output Set: N:\CRF4\01042006\J561084.raw

3 <110> APPLICANT: Peter Christian MORRIS  
4 Yvonne STAHL  
6 <120> TITLE OF INVENTION: Plant Limit Dextrinase Inhibitor  
8 <130> FILE REFERENCE: 13101/49101  
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/561,084  
C--> 11 <141> CURRENT FILING DATE: 2005-12-16  
13 <150> PRIOR APPLICATION NUMBER: PCT/GB2004/002583  
W--> 14 <151> PRIOR FILING DATE: 17-JUN-2004  
16 <150> PRIOR APPLICATION NUMBER: GB 0313998.7  
W--> 17 <151> PRIOR FILING DATE: 17-JUN-2003  
19 <160> NUMBER OF SEQ ID NOS: 25  
21 <170> SOFTWARE: PatentIn Ver. 2.1  
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24 <211> LENGTH: 517  
25 <212> TYPE: DNA  
26 <213> ORGANISM: Hordeum vulgare  
28 <220> FEATURE:  
29 <221> NAME/KEY: CDS  
30 <222> LOCATION: (14)..(457)  
32 <400> SEQUENCE: 1  
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35 1 5 10  
37 gcc gtc ttg ctc tcg gtc ctc gcc gtc gcc acc ctg gag agc 97  
38 Ala Val Leu Leu Ser Val Leu Ala Val Ala Ala Ala Thr Leu Glu Ser  
39 15 20 25  
41 gtc aag gac gag tgc caa cca ggg gtg gac ttc ccg cat aac ccg tta 145  
42 Val Lys Asp Glu Cys Gln Pro Gly Val Asp Phe Pro His Asn Pro Leu  
43 30 35 40  
45 gcc acc tgc cac acc tac gtg ata aaa ccg gtc tgc ggc cgc ggt ccc 193  
46 Ala Thr Cys His Thr Tyr Val Ile Lys Arg Val Cys Gly Arg Gly Pro  
47 45 50 55 60  
49 agc ccg ccc atg ctg gtg aag gag ccg tgc tgc ccg gag ctg gcg gcc 241  
50 Ser Arg Pro Met Leu Val Lys Glu Arg Cys Cys Arg Glu Leu Ala Ala  
51 65 70 75  
53 gtc ccg gat cac tgc ccg tgc gag gcg ctg ccg atc ctc atg gac ggg 289  
54 Val Pro Asp His Cys Arg Cys Glu Ala Leu Arg Ile Leu Met Asp Gly  
55 80 85 90  
57 gtg ccg acg ccg gag ggc cgc gtg gtt gag gga ccg ctc ggt gac agg 337  
58 Val Arg Thr Pro Glu Gly Arg Val Val Glu Gly Arg Leu Gly Asp Arg  
59 95 100 105  
61 cgt gac tgc ccg agg gag gag cag agg ccg ttc gcc ggc acg ctt gtc 385  
62 Arg Asp Cys Pro Arg Glu Gln Arg Ala Phe Ala Ala Thr Leu Val

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Input Set : A:\pto.da.txt  
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63 110 115 120  
 65 acg gcg gcg gag tgc aac cta tcg tcc gtc cag gag ccg gga gta cgc 433  
 66 Thr Ala Ala Glu Cys Asn Leu Ser Ser Val Gln Glu Pro Gly Val Arg  
 67 125 130 135 140  
 69 ttg gtg cta ctg gca gat gga tga cgatcgaaat gcgccaaagg aatgaagcgg 487  
 70 Leu Val Leu Ala Asp Gly  
 71 145  
 73 agtactgtat acagaataaa agtactcgag 517  
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 77 <211> LENGTH: 147  
 78 <212> TYPE: PRT  
 79 <213> ORGANISM: Hordeum vulgare  
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 83 1 5 10 15  
 84 Ser Val Leu Ala Val Ala Ala Ala Thr Leu Glu Ser Val Lys Asp Glu  
 85 20 25 30  
 86 Cys Gln Pro Gly Val Asp Phe Pro His Asn Pro Leu Ala Thr Cys His  
 87 35 40 45  
 88 Thr Tyr Val Ile Lys Arg Val Cys Gly Arg Gly Pro Ser Arg Pro Met  
 89 50 55 60  
 90 Leu Val Lys Glu Arg Cys Cys Arg Glu Leu Ala Ala Val Pro Asp His  
 91 65 70 75 80  
 92 Cys Arg Cys Glu Ala Leu Arg Ile Leu Met Asp Gly Val Arg Thr Pro  
 93 85 90 95  
 94 Glu Gly Arg Val Val Glu Gly Arg Leu Gly Asp Arg Arg Asp Cys Pro  
 95 100 105 110  
 96 Arg Glu Glu Gln Arg Ala Phe Ala Ala Thr Leu Val Thr Ala Ala Glu  
 97 115 120 125  
 98 Cys Asn Leu Ser Ser Val Gln Glu Pro Gly Val Arg Leu Val Leu Leu  
 99 130 135 140  
 100 Ala Asp Gly  
 101 145  
 105 <210> SEQ ID NO: 3  
 106 <211> LENGTH: 672  
 107 <212> TYPE: DNA  
 108 <213> ORGANISM: Hordeum vulgare  
 110 <220> FEATURE:  
 111 <221> NAME/KEY: CDS  
 112 <222> LOCATION: (39)..(482)  
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 117 119 cgc ttc ctc tcc ggc gcc gtc ttg ctc tcg gtc ctc gcc gtc gcc 104  
 120 Arg Phe Val Leu Ser Gly Ala Val Leu Leu Ser Val Leu Ala Val Ala  
 121 10 15 20  
 123 gcc gcc acc ttg gag agc gtc aag gac gag tgc caa cta ggg gtg gac 152  
 124 Ala Ala Thr Leu Glu Ser Val Lys Asp Glu Cys Gln Leu Gly Val Asp

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Input Set : A:\pto.da.txt  
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125	25	30	35	
127	ttc ccg cat aac ccg tta gcc acc tgc cac acc tac gtg ata aaa cgg			200
128	Phe Pro His Asn Pro Leu Ala Thr Cys His Thr Tyr Val Ile Lys Arg			
129	40	45	50	
132	gtc tgc ggc cgc ggt ccc agc cgg ccc atg ctg gtg aag gag cgg tgc			248
133	Val Cys Gly Arg Gly Pro Ser Arg Pro Met Leu Val Lys Glu Arg Cys			
134	55	60	65	70
136	tgc cgg gag ctg gcg gcc gtc ccc gat cac tgc cgg tgc gag gcg ctg			296
137	Cys Arg Glu Leu Ala Ala Val Pro Asp His Cys Arg Cys Glu Ala Leu			
138	75	80	85	
140	cgc atc ctc atg gac ggg gtg cgc acg ccg gag ggc cgc gtg gtt gag			344
141	Arg Ile Leu Met Asp Gly Val Arg Thr Pro Glu Gly Arg Val Val Glu			
142	90	95	100	
144	gga cgg ctc ggt gac agg cgt gac tgc ccg agg gag gag cag agg gcg			392
145	Gly Arg Leu Gly Asp Arg Asp Cys Pro Arg Glu Glu Gln Arg Ala			
146	105	110	115	
148	ttc gcc gcc acg ctt gtc acg gcg gag tgc aac cta tcg tcc gtc			440
149	Phe Ala Ala Thr Leu Val Thr Ala Ala Glu Cys Asn Leu Ser Ser Val			
150	120	125	130	
152	cag gcg ccg gga gta cgc ttg gtg cta ctg gca gat gga tga			482
153	Gln Ala Pro Gly Val Arg Leu Val Leu Leu Ala Asp Gly			
154	135	140	145	
156	cgtatgcataat ggcgcgcagg aatgtttttt gttttttttt acatgtttttt agtactcgat 542			
158	tgtttttttttt tttttttttttt aatgtttttttt gttttttttttt tatgtttttttt ggtttttttttt 602			
160	ttttttttttttt tttttttttttt tttttttttttt tttttttttttt tttttttttttt 662			
162	cataactat			672
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166	<211> LENGTH: 147			
167	<212> TYPE: PRT			
168	<213> ORGANISM: Hordeum vulgare			
170	<400> SEQUENCE: 4			
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173	Ser Val Leu Ala Val Ala Ala Ala Thr Leu Glu Ser Val Lys Asp Glu			
174	20	25	30	
175	Cys Gln Leu Gly Val Asp Phe Pro His Asn Pro Leu Ala Thr Cys His			
176	35	40	45	
177	Thr Tyr Val Ile Lys Arg Val Cys Gly Arg Gly Pro Ser Arg Pro Met			
178	50	55	60	
179	Leu Val Lys Glu Arg Cys Cys Arg Glu Leu Ala Ala Val Pro Asp His			
180	65	70	75	80
181	Cys Arg Cys Glu Ala Leu Arg Ile Leu Met Asp Gly Val Arg Thr Pro			
182	85	90	95	
183	Glu Gly Arg Val Val Glu Gly Arg Leu Gly Asp Arg Arg Asp Cys Pro			
184	100	105	110	
185	Arg Glu Glu Gln Arg Ala Phe Ala Ala Thr Leu Val Thr Ala Ala Glu			
186	115	120	125	
187	Cys Asn Leu Ser Ser Val Gln Ala Pro Gly Val Arg Leu Val Leu Leu			
188	130	135	140	

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TIME: 09:40:52

Input Set : A:\pto.da.txt  
Output Set: N:\CRF4\01042006\J561084.raw

189 Ala Asp Gly  
190 145  
194 <210> SEQ ID NO: 5  
195 <211> LENGTH: 621  
196 <212> TYPE: DNA  
197 <213> ORGANISM: Triticum aestivum  
199 <220> FEATURE:  
200 <221> NAME/KEY: CDS  
201 <222> LOCATION: (45)..(506)  
203 <400> SEQUENCE: 5  
204 ggatgaggag gagatgcaac ttgtcaacga caaataaaact atca atg gca tcc aac 56  
205 Met Ala Ser Asn  
206 1  
208 cat cgt cgc ttc ctc ctc tcc ggc gtc ttg ctc tca gtc ctc gcc 104  
209 His Arg Arg Phe Leu Leu Ser Gly Ala Val Leu Leu Ser Val Leu Ala  
210 5 10 15 20  
212 gcc gtg gcc ctg gag agc gtt gag gac gag tgc cag cca ggg gtg 152  
213 Ala Val Ala Ala Leu Glu Ser Val Glu Asp Glu Cys Gln Pro Gly Val  
214 25 30 35  
216 gcc ttc ccg cac aac gca tta gcc acc tgc cac acc tac gtg atc aaa 200  
217 Ala Phe Pro His Asn Ala Leu Ala Thr Cys His Thr Tyr Val Ile Lys  
218 40 45 50  
220 cgg gtc tgc ggc cgc ggt ccc agc cgg ccc atg ctg gtg aag gag cgg 248  
221 Arg Val Cys Gly Arg Gly Pro Ser Arg Pro Met Leu Val Lys Glu Arg  
222 55 60 65  
224 tgt tgc cgg gag ctg gcg gtc gtc ccg gat tac tgc cgg tgc gag gca 296  
225 Cys Cys Arg Glu Leu Ala Val Val Pro Asp Tyr Cys Arg Cys Glu Ala  
226 70 75 80  
228 ctg cgc gtc ctc atg gat ggg gtg cgc gcg gag gag ggc cac gtg gtg 344  
229 Leu Arg Val Leu Met Asp Gly Val Arg Ala Glu Glu Gly His Val Val  
230 85 90 95 100  
232 gag ggc cgc ctt ggt gac aga cgt gac tgc ccg agg gag gcg cag cgg 392  
233 Glu Gly Arg Leu Gly Asp Arg Arg Asp Cys Pro Arg Glu Ala Gln Arg  
234 105 110 115  
236 gag ttc gcc gcc acg ctg gtc acg gcg gcg gag tgc aac ctg ccg acc 440  
237 Glu Phe Ala Ala Thr Leu Val Thr Ala Ala Glu Cys Asn Leu Pro Thr  
238 120 125 130  
240 gtc tcg gga gtc ggg agt aca ctt ggt gcg acc ggc aga tgg atg acg 488  
241 Val Ser Gly Val Gly Ser Thr Leu Gly Ala Thr Gly Arg Trp Met Thr  
242 135 140 145  
244 atc gaa ttg ccc aag taa tgaagcgatc aaggcgaagta ctctactggc 536  
245 Ile Glu Leu Pro Lys  
246 150  
248 agatggagta ctgcgtatg aataaaagta ctcaagtcaa aacaaataaa taaagcttgt 596  
250 gagctgtatg cgtatgaaaa aaaaa 621  
253 <210> SEQ ID NO: 6  
254 <211> LENGTH: 153  
255 <212> TYPE: PRT  
256 <213> ORGANISM: Triticum aestivum

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/561,084

DATE: 01/04/2006  
TIME: 09:40:52

Input Set : A:\pto.da.txt  
Output Set: N:\CRF4\01042006\J561084.raw

258 <400> SEQUENCE: 6  
 259 Met Ala Ser Asn His Arg Arg Phe Leu Leu Ser Gly Ala Val Leu Leu  
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 261 Ser Val Leu Ala Ala Val Ala Ala Leu Glu Ser Val Glu Asp Glu Cys  
 262 20 25 30  
 263 Gln Pro Gly Val Ala Phe Pro His Asn Ala Leu Ala Thr Cys His Thr  
 264 35 40 45  
 265 Tyr Val Ile Lys Arg Val Cys Gly Arg Gly Pro Ser Arg Pro Met Leu  
 266 50 55 60  
 267 Val Lys Glu Arg Cys Cys Arg Glu Leu Ala Val Val Pro Asp Tyr Cys  
 268 65 70 75 80  
 269 Arg Cys Glu Ala Leu Arg Val Leu Met Asp Gly Val Arg Ala Glu Glu  
 270 85 90 95  
 271 Gly His Val Val Glu Gly Arg Leu Gly Asp Arg Arg Asp Cys Pro Arg  
 272 100 105 110  
 273 Glu Ala Gln Arg Glu Phe Ala Ala Thr Leu Val Thr Ala Ala Glu Cys  
 274 115 120 125  
 275 Asn Leu Pro Thr Val Ser Gly Val Gly Ser Thr Leu Gly Ala Thr Gly  
 276 130 135 140  
 277 Arg Trp Met Thr Ile Glu Leu Pro Lys  
 278 145 150  
 282 <210> SEQ ID NO: 7  
 283 <211> LENGTH: 444  
 284 <212> TYPE: DNA  
 286 <213> ORGANISM: Hordeum spontaneum  
 288 <220> FEATURE:  
 289 <221> NAME/KEY: CDS  
 290 <222> LOCATION: (1)..(444)  
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 294 Met Ala Phe Lys Tyr Gln Leu Leu Leu Ser Ala Ala Val Met Leu Ala  
 295 1 5 10 15  
 297 att ctc gcc gcc act gtc acc agt ttc ggg gat atg tgt gct cca ggg 96  
 298 Ile Leu Ala Ala Thr Val Thr Ser Phe Gly Asp Met Cys Ala Pro Gly  
 299 20 25 30  
 301 gat gcg ttg cca gcc aac cct ctc aga gcc tgc cgc acc tat gtg gtt 144  
 302 Asp Ala Leu Pro Ala Asn Pro Leu Arg Ala Cys Arg Thr Tyr Val Val  
 303 35 40 45  
 305 agt caa atc tgc cat gta ggc cct aga cta tcc acc tgg gac atg aag 192  
 307 Ser Gln Ile Cys His Val Gly Pro Arg Leu Ser Thr Trp Asp Met Lys  
 308 50 55 60  
 310 agg cgg tgc tgc gac gag ctg tcg gcc atc ccg gcg tac tgc aga tgc 240  
 311 Arg Arg Cys Cys Asp Glu Leu Ser Ala Ile Pro Ala Tyr Cys Arg Cys  
 312 65 70 75 80  
 314 gag gcg ctg cgt atc atc atg gat ggg aca gta act tgg cag ggt gtg 288  
 315 Glu Ala Leu Arg Ile Ile Met Asp Gly Thr Val Thr Trp Gln Gly Val  
 316 85 90 95  
 318 ttc ggt gcc tac ttc aag gac atg ccc aac tgc cct agg gtg atg caa 336  
 319 Phe Gly Ala Tyr Phe Lys Asp Met Pro Asn Cys Pro Arg Val Met Gln

## VERIFICATION SUMMARY

PATENT APPLICATION: US/10/561,084

DATE: 01/04/2006

TIME: 09:40:53

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\01042006\J561084.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:14 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD

L:17 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD

**Raw Sequence Listing before editing,  
for reference only**



IFWP

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/561,084

DATE: 12/30/2005

TIME: 09:23:53

Input Set : A:\SEQUENCE LISTING.txt

Output Set: N:\CRF4\12302005\J561084.raw

3 <110> APPLICANT: Peter Christian MORRIS  
 4 Yvonne STAHL  
 6 <120> TITLE OF INVENTION: Plant Limit Dextrinase Inhibitor  
 8 <130> FILE REFERENCE: 13101/49101  
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/561,084  
 C--> 11 <141> CURRENT FILING DATE: 2005-12-16  
 13 <150> PRIOR APPLICATION NUMBER: PCT/GB2004/002583  
 W--> 14 <151> PRIOR FILING DATE: 17-JUN-2004  
 16 <150> PRIOR APPLICATION NUMBER: GB 0313998.7  
 W--> 17 <151> PRIOR FILING DATE: 17-JUN-2003  
 19 <160> NUMBER OF SEQ ID NOS: 25  
 21 <170> SOFTWARE: PatentIn Ver. 2.1

Does Not Comply  
 Corrected Diskette Needed  
 (pg-1)

## ERRORED SEQUENCES

789 <210> SEQ ID NO: 25  
 790 <211> LENGTH: 20  
 791 <212> TYPE: DNA  
 792 <213> ORGANISM: Artificial Sequence  
 794 <220> FEATURE:  
 795 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR primer  
 797 <400> SEQUENCE: 25  
 798 ccatgcctag ggtcacactt  
 E--> 811 (1)

20

811 (1)   
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**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/561,084

DATE: 12/30/2005

TIME: 09:23:54

Input Set : A:\SEQUENCE LISTING.txt

Output Set: N:\CRF4\12302005\J561084.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:14 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD

L:17 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD

L:811 M:254 E: No. of Bases conflict, this line has no nucleotides.